

Presentation to the Science Advisory Board and the Board of Scientific Counselors

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Former ORD Research Structure	Integrated ORD Research Structure
Global Change Research	Air, Climate & Energy
Sustainability Research	
Clean Air Research	
Human Health and Ecosystems Research	
Drinking Water Research	Safe and Sustainable Water Resources
Water Quality Research	
Human Health and Ecosystems Research	Sustainable and Healthy Communities
Pesticides & Toxics Research	
Sustainability Research	
Fellowships	
Land Research(Excluding Nanotechnology)	
EDCs Research	Chemical Safety for Sustainability
Computational Toxicology Research	
Human Health & Ecosystems Research	
Human Health Risk Assessment (NexGen)	
Pesticides & Toxics Research	
Land Research (Nanotechnology)	
Clean Air Research (Nanotechnology)	
Sustainability Research	
Human Health Risk Assessment	Human Health Risk Assessment
Homeland Security	Homeland Security

Realigning our Research

We re-structured 12 of our research programs into 4 programs aligned with the EPA Strategic Goals:

Strategic Goals 2011-2015

Taking Action on Climate Change and Improving Air Quality

Protecting America's Waters

Cleaning Up Communities and Advancing Sustainable Development

Ensuring the Safety of Chemicals and Preventing Pollution

Integrated Research Structure

Air, Climate & Energy

Safe and Sustainable Water Resources

Sustainable and Healthy Communities

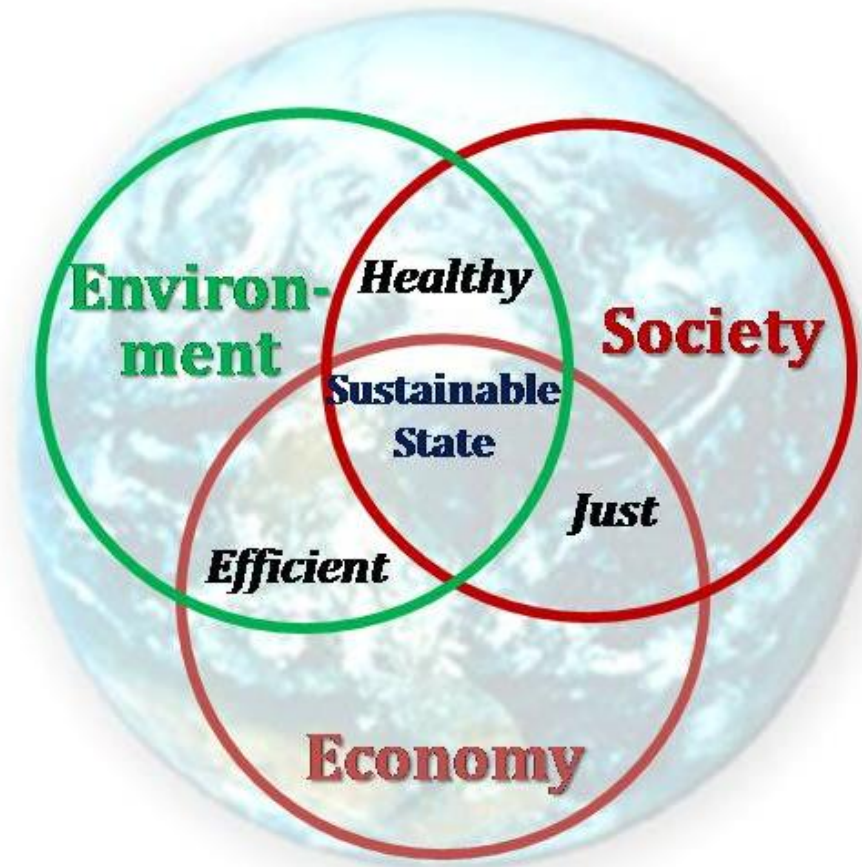
Chemical Safety for Sustainability

EPA's FY 2012 Pres Bud Request for Research

Extramural, Intramural, and Administrative Resources

Program/Project	Extramural Research Program (STAR)		Intramural Research Program		Administrative Costs		ORD Total	
	\$000	FTE	\$000	FTE	\$000	FTE	\$000	FTE
Air, Climate & Energy	\$26,751	6.9	\$72,409	237.2	\$8,839	65.5	\$108,000	309.6
Safe & Sustainable Water Resources	\$11,870	2.2	\$94,355	344.4	\$12,551	93.0	\$118,776	439.6
Sustainable & Healthy Communities	\$33,743	18.4	\$137,809	471.8	\$17,750	131.5	\$189,302	621.7
Chemical Safety for Sustainability	\$18,080	5.0	\$69,220	225.8	\$8,357	61.9	\$95,657	292.7
Human Health Risk Assessment	\$0	0.0	\$40,152	154.4	\$5,590	41.4	\$45,742	195.8
Homeland Security	\$0	0.0	\$24,805	51.0	\$1,847	13.7	\$26,652	64.7
Total	\$90,444	32.5	\$438,750	1484.6	\$54,935	407.0	\$584,129	1924.1

The Three Pillars of Community Sustainability



Unsustainable Resource Utilization

Industry
(products, energy)

*Economic value
is created for society*

Society
(communities, governments)



Labor is utilized in industry

*Ecological goods
and services are utilized in
industry*

*Ecological goods
and services are utilized in
society*

Environment (air, water, land, humans & ecosystems)



A Systems Approach to Sustainable Resource Use

Industry
(products, energy)

*Economic value
is created for society*

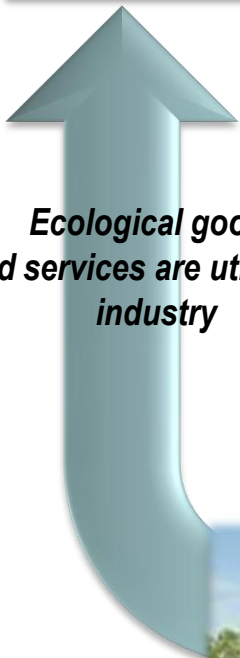
Society
(communities, governments)



Labor is utilized in industry

*Minimize impact of waste and
emissions on the environment to
protect our ability to produce
ecological goods*

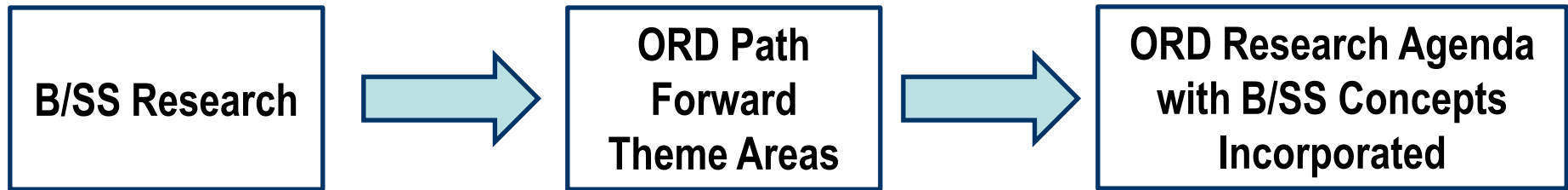
Environment (air, water, land, humans & ecosystems)



*Ecological goods
and services are utilized in
industry*

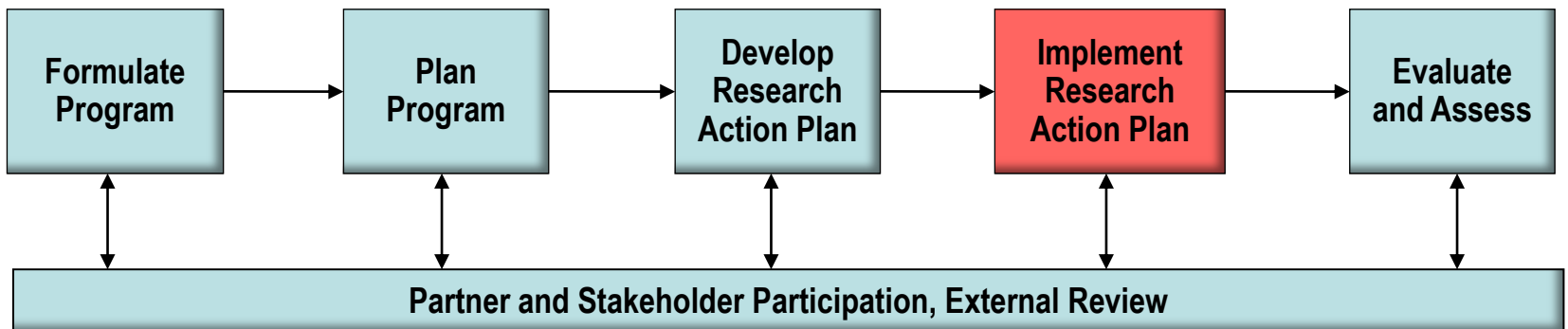
*Ecological goods
and services are utilized in
society*

Behavioral/Social Sciences



- Human Behavior
- Role of Communication
- Relationship between Perceptions, Beliefs and Attitudes
- Status of Environmental Education
- Role of Business and other Organizations
- Governance and Community-led Engagement
- Economic Valuation of Environmental Policy

Research Portfolio Development and Management Process



Charge Questions to the SAB/BOSC

- How well do ORD's research programs align with the strategic program priorities identified by EPA's National Program and Regional Offices? If resources allow, what are areas for increased emphasis? If resources decline, what areas might be appropriate for decreased emphasis?
- How can ORD enhance coordination among its research programs, and better ensure that they complement one another?
- How well do ORD's proposed research directions reflect its commitment to sustainably protecting human health and the environment?

Charge Questions to the SAB/BOSC

- How do the six programs fit together as an integrated environmental research strategy, charged with informing decisions on the nation's most-critical environmental issues? Are these programs positioned to address the nation's highest priority, emerging environmental issues in the coming years?
- Based on Board members' familiarity with efforts in the broader scientific community, how well do ORD's research programs appear to catalyze and complement environmental science programs elsewhere? What suggestions do the members have for how EPA's research programs could improve upon their leveraging with those of others?
- How does the SAB/BOSC view ORD's activities in stimulating innovative research and what other suggestions would the SAB/BOSC have to promote innovation in EPA research?